

REMARKS

This paper is timely filed as it is submitted with a certificate of mailing under 37 C.F.R. §1.8, a petition for a two-month extension of time, and a check for the required petition fee under 37 C.F.R. §1.17(a)(1) thereby extending the response date to November 10, 2005. In addition, this paper is accompanied by a Request for Continued Examination.

I. STATUS OF THE AMENDMENT

By this amendment, claim 18 is added. Claim 18, which is similar in nature to but is considered to be broader in at least some respects than claims 1 and 8, is clearly supported by the specification as originally filed. As a result, no new matter is added. However, the fee for the consideration of one additional independent claim (over the three provided for with the filing fee) is included herewith.

As a result of this amendment, claims 1-18 are pending in this application. Claims 9-11 are allowed. Claims 1-8 and 12-18 are therefore at issue with claims 1, 8 and 18 being the independent claims at issue.

II. REJECTION UNDER 35 U.S.C. §102(e)

Applicants respectfully traverse the rejection of claims 1-8 and 12-17 as obvious over Ainsbury et al., U.S. Patent No. 6,078,924 (hereinafter "Ainsbury") in view of Cipelletti et al., U.S. Patent No. 5,673,194 (hereinafter "Cipelletti").

Generally speaking, each of claims 1-8 and 12-18 recites an event historian, a batch history view application or a batch history viewer that is used in a *batch* process to collect (1) process event information comprising batch process data related to the operation of the process equipment within a process plant (e.g., the valves, tanks, etc. that are actually performing the batch process) and (2) batch procedure event information, including batch subprocedure information, from a batch control device (e.g., the process controller that controls the process equipment to perform the batch process). Additionally, the recited event historian or the viewing device derives relationships between the batch procedure event information (including one or more batch subprocedures which make up a batch procedure) and the process event information to thereby be able to display the batch process data in a manner that illustrates a manner in which this batch process data (such as alarms, events, etc.) relates to the batch procedure being performed within the process (such as which

batch subprocedure was being performed when a particular alarm or event arose). In this manner, a user may view or be able to easily determine what batch procedure or subprocedure was taking place when a particular piece of process equipment failed, sent an alarm or an event notification, experienced a particular process condition, etc. This ability to view the batch process data (e.g., process equipment alerts and alarms) in a manner that is coordinated with or that identifies the batch subprocedure that was occurring on the equipment at the time, aids operators and other users to better diagnose problems or to better understand the operation of the batch process.

In the past, while an event historian collected batch process data indicative of the state of the process equipment (such as alarms and alerts generated by batch process equipment), a user had little or no way of determining the batch subprocedure that was occurring when the process equipment data arose or was generated. Independent claims 1, 8 and 18 provide systems that overcome this problem and, in particular, recite (1) collecting batch process event data from process devices within a process plant running a batch process, (2) collecting batch procedure event information from a batch control device (e.g., the batch process controller) indicative of, for example, the batch subprocedure being run and (3) deriving relationships between these two types of data. In this manner, disparate types of data such as the process event information received from batch process devices (e.g., field devices) and the batch procedure or subprocedure event information received from a batch control device are automatically linked together to “provide a comprehensive, understandable presentation”¹ of the operation of the batch process to the user.

The combination of Ainsbury and Cipelletti cannot render any of claim 1-8 and 12-17 or claim 18 obvious because neither Ainsbury nor Cipelletti is related to or is disclosed as being useable in a batch process, much less as being related to the collection or viewing of batch process data or of deriving relationships between process data of any type and batch procedure data. As a result, no combination of Ainsbury and Cipelletti can produce the invention recited by any of claims 1-8, 12-17 or 18.

While Ainsbury is generally directed to a data collection and storage system, the Ainsbury system is not disclosed as being applicable to process control systems in

¹ See Discussion of the Related Art section on page 6, lines 22 – 24 of the application as originally filed.

general, or to process control systems which operate batch processes in particular. Thus, while Ainsbury generally discloses collecting “data” from multiple sources and storing that data for later viewing, Ainsbury does not specifically disclose or suggest that it might be possible or desirable to collect either process event information or batch procedure event information from a process plant, much less automatically deriving relationships between these two types of data and displaying these relationships to a user. Ainsbury surely does not provide any motivation for deriving relationships between these particular types of data, much less displaying these relationships to a user, nor has the examiner pointed to such a motivation in Ainsbury.

Moreover, Cipelletti fails to provide the missing disclosure of Ainsbury. While Cipelletti discloses the collection of process data (e.g., data related to the operation of the process equipment), the Cipelletti patent is limited to collecting data in a continuous manufacturing system as opposed to a *batch* manufacturing system. Thus, Cipelletti cannot disclose the collection of *batch* process event information or the collection of *batch procedure information* from a *batch process control device* because, simply put, Cipelletti does not disclose a process that creates batch process event information or a process that uses a batch control device.

In particular, the Cipelletti system includes a number of machines which operate in a continuous manufacturing process as part of a production line to produce an electronic circuit board (which Cipelletti confusingly refers to as a “control device”).² According to Cipelletti, bar code readers are disposed throughout the plant to read bar codes on the circuit boards being manufactured and to log the time that each circuit board enters and leaves each process equipment station. That bar code/time data is then stored, along with other process equipment data, in a long term database so that, when needed, the state of the process equipment during the time in which a particular circuit board was being processed can be recreated.

Contrary to the claimed system, the Cipelletti patent does not operate on or deal with a batch manufacturing process, but instead is related only to a continuous manufacturing process. In any event, Cipelletti certainly does not disclose the use of

² Here it is important to realize that the “control device” or the “controller” of Cipelletti is the ultimate product being manufactured and not the process controller that is controlling the process equipment performing the manufacturing steps. The recited “batch control device” is, on the other hand, the process controller or other control device connected to the process equipment that causes the process equipment to operate in a particular manner to make the product being manufactured.

one or more batch subprocedures or the use of a batch control device that controls the process equipment to undergo various batch subprocedures. Thus, while Cipelletti apparently collects data indicative of when a circuit board being manufactured enters and leaves a particular machine, this data is not indicative of a batch subprocedure as recited by the claims at issue nor is this data collected from a batch control device (or any type of control device) as recited by the claims at issue.

Furthermore, Cipelletti does not disclose that it might be useful or even possible to collect batch subprocedure information from a batch control device, much less doing so in conjunction with storing that data to be correlated with batch process data. It follows, therefore, that Cipelletti cannot disclose deriving relationships between batch subprocedure information (from a batch control device) and batch process event information for the simple reason that Cipelletti does not collect either of these types of data.

Thus, as explained above, neither Ainsbury nor Cipelletti discloses collecting batch process event information (from any type of device) or collecting batch subprocedure event information from a batch control device, wherein the batch control device is separate from the physical elements of the process, much less a device that automatically derives relationships among portions of the batch process event information and batch subprocedure event information. It is clear, however, that the prior art must make a suggestion of or provide an incentive for a claimed combination of elements to establish a *prima facie* case of obviousness. See, *In re Oetiker*, 977 F.2d 1443, 24 U.S.P.Q.2d 1443, 1446 (Fed. Cir. 1992); *Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. 1985). Because each of Ainsbury and Cipelletti fails to disclose or suggest the collection of data in a batch process, much less the collection of batch subprocedure data or data from a batch control device, it follows that no combination of Ainsbury and Cipelletti can render any of claims 1-8 and 12-17 or claim 18 obvious.

III. SUBMISSION OF PRIOR ART

Applicants submit herewith an additional Information Disclosure Statement listing information of which the applicants are aware and which the examiner does not appear to have yet considered. Some or all of this information was previously submitted to the Patent Office but does not appear to have made it to the file. In any event, the examiner is requested to consider this information and to provide an

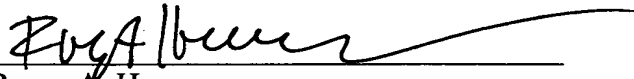
initialized copy of the Form PTO/SB/08a/b provided herewith citing the information in the next paper.

IV. CONCLUSION

For these foregoing reasons, applicants submit that the application is in condition for allowance. Reconsideration and withdrawal of the rejections and allowance of the claims are therefore respectfully requested. If there are any additional fees or refunds required, the Commissioner is hereby authorized to charge or credit Deposit Account No. 13-2855 (06005/36359). A copy of this paper is included herewith for this purpose.

Respectfully submitted,

November 7, 2005

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